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Warrick

DISCOURSE

Concerning the

Item 27-67

PLAGUE,

With some

PRESERVATIVES

Against it.

By a Lover of Mankind.

Dii talem Terris avertite Pestem. Virgil.



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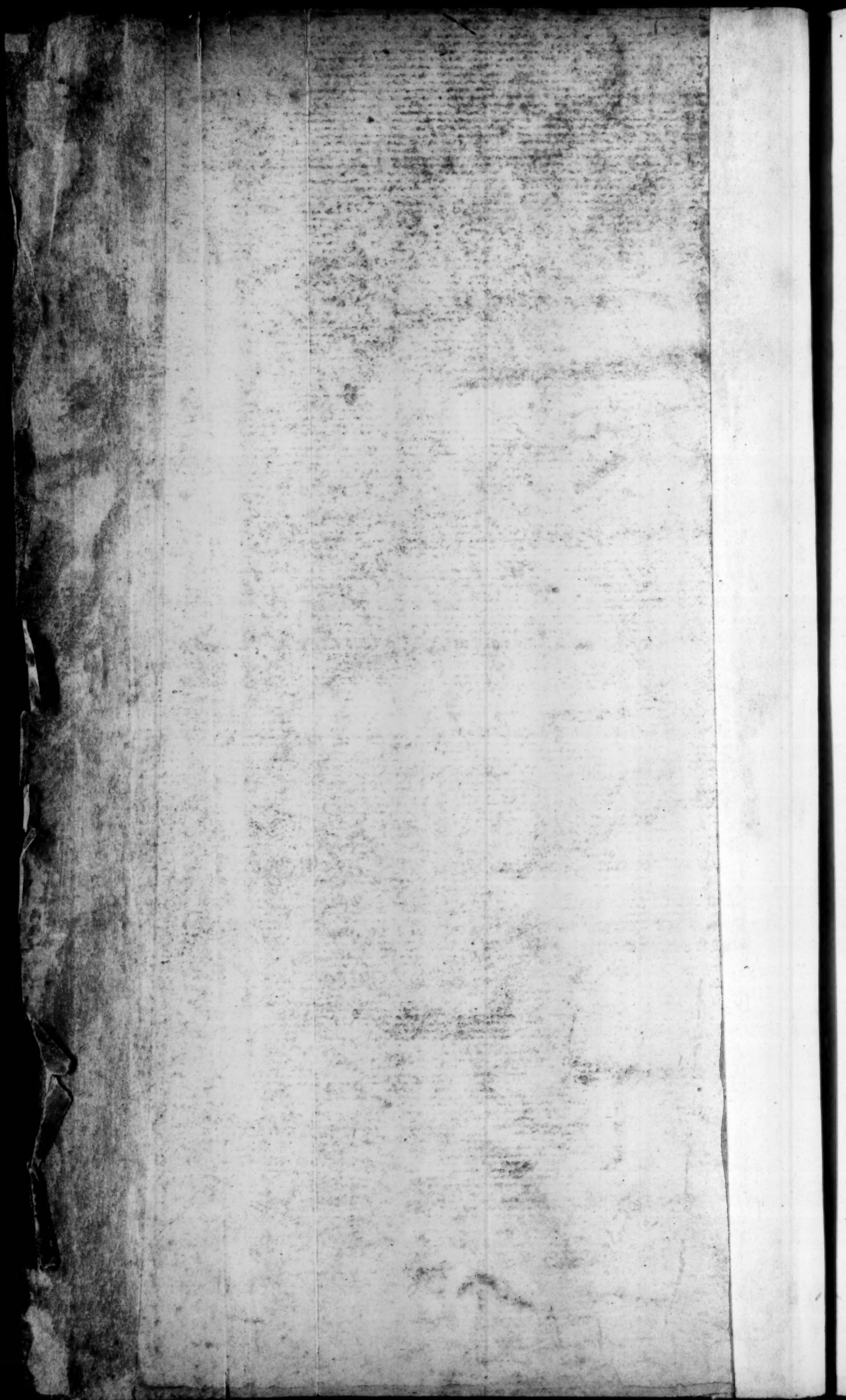
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A

DISCOURSE

Concerning the

PLAGUE.



HERE is no question but the disease commonly call'd the Plague, or Pestilence, is more destructive to mankind than any other, and is one of the severest scourges that God Almighty makes use of, to chastize a corrupt and degenerate people: Tho' the Plague certainly is of more general signification than the Pestilence, whether we regard the etymology of the word, or the sense in which 'tis commonly understood, especially in Holy Scripture. We find there the word *מָגֵפָה* by us render'd the Plague, is us'd for any considerable stroke, calamity,

or distemper, which God is pleas'd to inflict on mankind for their transgressions. ^a For instance, all the dreadful judgments executed upon *Pharaoh*, and his unhappy subjects, are call'd Plagues, tho' none of them, except the destruction of their First-born, seem'd to have had any relation to the Pestilence. ^b So likewise the Leprosy is call'd the Plague in several places. ^c Thus Consumption, Terror, and the burning Ague, as well as Famine and the ravage of Enemies, were all threaten'd under the name of so many Plagues in the Old Testament. Also in the New, ^d that inveterate issue of blood, whereof the woman was heal'd by touching the garment of our Saviour, was term'd a Plague. ^e By the same name other infirmities were call'd, tho' they were nothing akin to the fatal distemper that now goes under that denomination.

Indeed, in some texts 'tis us'd for the Pestilence itself; as when the children of *Israel*, being cloy'd with the bread of Heaven, lusted after flesh in the wilderness, God was pleas'd to indulge their disorderly inclinations with a mighty flight of Quails^f: but they either eat too greedily of 'em, or else great part of that immense number (which we are told lay round about the camp two cubits thick upon the ground, for several miles together) must have dy'd, and with their stench have corrupted the air, and so brought the Plague amongst the people. ^g So

^a Exod. xi. 1. ⁱ Sam. iv. 8.
xxvi. 21. ^d Marc. v. 29.
xi. 33. ^g Num. xiv. 37.

^b Lev. xiii. 3.
^e Luke vii. 21.

^c Lev.
^f Num.

the men, whom *Moses* had detach'd to reconnoitre the land of *Canaan*, all dy'd of the Plague, except *Joshua* and *Caleb*, for terrifying their country-men, and exciting them to murmur against *Moses*. ^h In like manner, when the congregation, after the dismal destruction of *Korah*, and his seditious accomplices, mutiny'd against *Moses* and *Aaron*, the Plague broke out upon them, and destroy'd 14700 Souls. And this sickness might naturally have proceeded from some baleful vapours, that ascended from the bowels of the earth, when it open'd to swallow up these rebellious persons. ⁱ Thus likewise they lost 24000 more, by another Plague sent by God upon the *Israelites*, for suffering themselves to be seduc'd by the intrigues of the *Moa-bitish* women, to sacrifice to their idols, and to join themselves to *Baal-peor*.

^k Indeed that Plague, wherewith God mortify'd the vanity of *David* in numbering the people, is not call'd a Plague, but a Pestilence: and the *Hebrew* word דבר, us'd in this place, is very remarkable, being deriv'd from the root דבר, which signifies to *speake*, *pronounce*, or *decree*, as if this cruel distemper, that sweeps away mankind with a sudden destruction, never happens but by the special sentence and designation of Almighty God. And as other diseases befall us in consequence of our own personal intemperance and disorder, this seems to be sent upon a nation in general, by this particular appointment, to waste

^h Num. xvi. 46.

ⁱ Num. xxv. 9.

^k 2 Sam. xxiv. 13.

and exterminate its inhabitants, for their notorious and crying sins.

Now tho' God be able to do every thing in heaven and in earth, by an immediate act of Omnipotence, yet he is generally pleas'd to work by the ministry of second causes, without stepping out of the ordinary track of his Providence. Nevertheless, since natural causes are all subject to his sovereign decrees, how easy is it for his almighty power, to call forth those natural causes, to execute his vengeance upon a deprav'd and rebellious generation? How easy is it for God to shake the mountains by an earthquake, and out of the cliffs thereof make way for contagious damps, that may taint the air with Pestilence? He can, by a strong wind transport numberless insects into our land, which often happens in *Æthiopia*¹; and from the stench of their corrupted carcases kindle a Pestilence among us. God is able to withhold the former and the latter rain, or by Blites and Caterpillers to consume the fruits of the earth, ^m so as by Famine to oblige us to feed on such foul and unwholsome things, as naturally beget a Pestilence. Or, which is the more common way of infecting these northern parts of *Europe*, how very easy is it for the divine wisdom so to order it, as that the ⁿ Infection may be brought by shipping or caravans from some other country. Thus it is frequently transported from *Turkey* and *Ægypt*, into places that traffick with them. These, and

¹ Ludolphi Hist. Æthiop.
Florus 3. 5. Q. Curtius, 9. 10.

^m Appian. Hist. Rom. 40. Luc.
ⁿ Phil. Transf. 165.

a thousand other ways the providence of God finds out, to introduce a Pestilence into a city or nation, without going out of the order of nature.

However, I am not so arrant a Physician as to conceit, that because the Plague is thus brought upon us in a natural way, that 'tis therefore purely and wholly to be imputed to natural causes. No! God did so frequently menace the *Jews* with this fatal disease, and also make good those menaces by so many dreadful instances, that we should be as great unbelievers as they, if we did not allow, when it befalls a nation, that the hand of God is in it. In that magnificent description, which the prophet ° *Habakkuk* gave us of the Majesty of God, there's nothing strikes us more, than where he said, *that before him marched the Pestilence*; as if that avenging disease were as inseparable from the terrible Judge of Heaven and Earth, as the heathen Poets made the Thunder-bolt from *Jupiter*, to execute his wrath upon his wicked and incorrigible creatures. There is nothing occurs so frequently in the Prophets, as these tremendous expressions. ¶ *I will consume them by Pestilence; I will send upon them my Pestilence; I will proclaim a liberty to the Pestilence; and I will plead against them by Pestilence.* These dreadful menaces were directed, indeed, to the *Jewish* nation; but we have great reason

° Hab. iii. 5. ¶ Jer. xiv. 12. Jer. xxxiv. 17. Ez. xxxviii. 22.

to bring them home to ourselves, in case we obstinately persist in our rebellion against God.

The very Heathen seem'd to believe, that this distemper came upon a country by special commission from the Gods, to avenge some enormous crime, or national transgression. We find this by many passages both in the *Greek* and *Roman* Authors; but I shall only instance that remarkable place in the first *Iliad* of *Homer*, where he tells us, that *Apollo*, to punish the indignity offer'd to one of his Priests by *Agamemnon*, sent a Plague into the *Grecian* camp, which destroy'd abundance of his men.

ἤ Λητῆς καὶ Διὸς υἱός· ὃ γὰρ βασιλῆϊ χολωθεὶς
 Νῆσον ἀνὰ στρατὸν ὥρσε κακῶ· ὀλέκοντο δὲ λαοί,
 Οὐνεκα τὸν Χρυσῶν ἠτίμησ' ἀρητῆρα
 Ἀτρεΐδης.

We may therefore, upon the credit of so general an opinion, venture to believe, without much superstition, that this mortal arrow is shot from the quiver of the Almighty: and then surely the most reasonable remedy we can use against it, will be a sincere repentance and reformation. ¹Our amendment will, like the vigorous atchievement of *Phineas*, stay the fury of the Plague, and the same Omnipotence that exerted itself in our punishment, will be as conspicuous in our deliverance.

However, when I recommend an unfeigned repentance and humiliation before God, as the

¹ Hom. *Iliad*. lib. i. ὅ. 9.

² Num. xxv. 8.

first and greatest preservative against this pernicious distemper, yet I would not be understood thereby to depreciate the application of such natural remedies, as the divine goodness has vouchsafed to reveal to mankind. On the contrary, as God is pleas'd to send this great calamity upon us by natural ways, so it seems agreeable to his wise providence, that we should endeavour both to prevent and cure it by natural applications. But I am humbly of opinion, that in order to induce his infinite goodness, to direct us to these natural remedies, and after that to bless them with success, the most prevailing course we can take, is, heartily to repent of our sins, and reform our corrupt and vicious lives. After this happy step taken, we shall render the business of the Physician more easy, his prescriptions more efficacious, and our constitutions more vigorous to resist and expel the distemper.

Having thus far acted the part of a Divine and a Christian, I will now beg leave to put on the different characters of a Physician and a Naturalist. I will endeavour, out of the most celebrated Authors, to describe this destructive disease, its most frequent causes and symptoms, and after all, conclude with some very proper preservatives, both publick and private, against it.

^f Of that disease properly call'd the Plague or Pestilence, there seems to be diverse sorts, at least it discovers different symptoms, according to the various causes from whence it proceeds,

^f Cardan. de Subt. 134.

or according to the several climates or seasons of the year in which it rages. But those which have happen'd this last Century in *Britain*, and in most other countries of *Europe*, particularly that great Plague in 1665, has been thus describ'd by some eminent Physicians, that were conversant with it.

'The Plague is a burning and contagious Fever, proceeding from an inflammation of the most spirituous parts of the blood, occasion'd by a venemous taint of the air. "It most commonly begins with a chilness and shivering, like an Ague, after which succeed violent vomitings, and a most intense fever. Sometimes too the patient is afflicted with a looseness, which leaves him not till the hour of his death. From the very beginning the sick person feels an insupportable oppression at his heart, which makes him sigh continually. In this sad condition he languishes, till either nature be enabled to throw off the morbidick matter in Carbuncles, Buboes, or other Impostumes, by the benefit of which (if they can be brought to a kindly maturation) he may recover; or else till the fibers of the blood be broke to pieces by the violence of the conflict, and the frame of it utterly dissolv'd. Then follows a coagulation of the blood; and by its not being able longer to circulate, a mortification, which shews itself in purple spots on sundry parts of the body. These are certain tokens of approaching death, tho' sometimes they are not seen till after the party is dead.

^c Willis Epit. 592.

^u Sydenham Obs. Med. 93.

There are some instances too in the beginning, or else in the increase of this fatal disease, that these deadly Tokens break out upon a man in perfect health, and hurry him to his grave, without being preceded by any sensible symptoms of a fever. This happens thro' the extrem subtilty of the contagion, which in an instant coagulates the blood, before nature can raise a fever in her own defence. So in like manner it frequently falls out, that Buboes and Swellings rise suddenly, without any apparent fever, or other violent symptom. Thus a man may have the Plague and dye, without perceiving himself to be sick; or on the contrary, without any confinement he may have it and recover, by the benefit of a vigorous and happy constitution. But then this last case rarely happens to any, but persons of remarkable temperance, in whom there are no superfluous humours for the distemper to work upon.

The Plague may break out in any season of the year, when it is brought either by sea or land from some other place. But the most natural time of its beginning is the spring, when people are most inclined to inflammatory diseases. Then as the heat comes on, it spreads its baleful contagion; but abates its fury again as the heat decreases, till the winter happily changes the air into an opposite constitution. Some seeds of the infection may however be left behind, and some few persons may chance to have the Plague in winter; but then it proves neither so raging nor so frequent. If it should be imported into a new place in winter time, 'tis generally

nerally less contagious, and less mortal, being checkt by the nitrous particles, wherewith the air is replete during that season, and by the multitude of fires in every house, which help to correct and subdue the infection; neither in that case does it ever rise to the same dreadful degree of mortality the following spring.

^w This cruel distemper, is by some Virtuosi, deriv'd originally from *Asia*, as well as the Small-pox: but I conceive the principal reason of that opinion to be, that the Plague is, for the most part, handed from thence into *Europe*: But others think we are altogether as much beholden to *Africa* for it, ^{*} where infinite swarms of Locusts are often found dead upon the ground; and with the stench of their carcasses, putrify'd by the heat of a perpendicular sun, kindle a Pestilence in the neighbouring countries. Thus much is certain at least, that this disease is no where in the world more frequent than in ^y *Æthiopia* and *Ægypt*; and travellers assure us, that *Grand Cairo* is hardly ever free from it. The truth of it is, the same reason may be given for its being so constantly there, that they give for its being always in the *Turkish* Dominions. Their firm belief of Predestination makes them utterly careless to prevent this dismal distemper; for they will tell you, that if the Plague be writ by fate in their foreheads, all the precautions in the world can't prevent it: nay, they reckon it a kind of impiety, to en-

^w Phil. Transf. 165.
venot, par. 1.

^{*} Lud. Hist. Æthiop. 1. 13.

^y Tha-

deavour to hinder those fatal decrees by our impertinent discretions. For this reason they seldom or never use any rules of prudence, either to prevent or cure their distempers, except only the Small Pox; and in this case they do it rather to save their faces, than their lives; not considering, that one is as subject to fate as the other. They have no professed Physicians, because a true *Turk* will use no doctor but *Mahomet*, nor rely on any sort of physick but the *Alcoran*.^z Thus the Plague is suffer'd every where in that vast Empire to range at large, without being obstructed either by caution or cure, and from thence 'tis deriv'd to all other Countries that maintain any commerce with them.

But most Christian states, (the *Presbyterians* not excepted, who pretend also to believe in fatality) fancy it may be prevented by care, and therefore employ the requisite precautions. In *England* it us'd formerly to make a visit about once in twenty or thirty years: but since the universal use of Tobacco, it has now been kept off above fifty four years. Without the assistance of this powerful Alexipharmick, it were, humanly speaking, impossible to have warded it off so long, considering the constant and extensive Traffick the *English* have carry'd on to every part of the *Levant*, and the very little care that has been taken to hinder the Infection. Indeed whenever the Plague does get footing in *Great Britain*, it handles us very severely, as the Small Pox is likewise observed to do: but

^z Sir P. Ricaut. Hist. Turk.

whether this be owing to our gross feeding, to our excesses, or our climate, the learned must determine.

Some have affirmed that the Plague is utterly unknown in *America*, that 'tis neither original there, nor hath ever been transported thither, by reason of its vast distance from infected countries. I can't conceive upon what this conjecture is founded, except it be, that as the Pox is supposed to be a native of that new world, that alone seems punishment sufficient, without the addition of the Plague. However I very much suspect the truth of this opinion, because we have often heard of distempers there that have been very mortal, and very contagious; insomuch that if they have really not been the Plague, they have been very little better. Besides many parts of *America* are visited by earthquakes, which rending the sides of the mountains, may set at liberty those noxious steams, that engender the Pestilence elsewhere. Other parts of it have been afflicted with Famine, after which often marches the Pestilence in dreadful array. Neither are Locusts wanting, and many other insects, whose mighty armies having laid whole countries waste, at length die themselves of hunger, and infect the air with their corrupted carcases. Now since *America* does not want the natural causes which in *Asia* produce the Plague, it would be very strange if it miss'd having the fatal effects. But if the new world have not naturally this cruel distemper, yet since it hath furnish'd us with as bad a one of its own growth, 'tis odd enough it never should have
received

received the Plague in requital. However if it be really true, that this cruel scourge be still a stranger there, it must certainly be owing, in a great measure, to the universal use of Tobacco. Most of the southern colonies cultivate this useful Plant, and all in general take it, as well Europeans and Indians, as Negroes; so that there is no complection, no degree of men, but arm themselves with this invincible antidote against the enemy of mankind.

In *Europe* 'tis agreed, that the Plague is for the most part propagated by communication, as when 'tis carry'd from one place to another, either by persons or goods, that bring some taint of the infection along with them. We find by repeated experiences, that in this case the air is really not infected to any great distance, because towns and countries in the neighbourhood of others, where this Plague rages, are saved from the contagion, by prohibiting all commerce and correspondence with them. *Tuscany* was a happy instance of this truth in the year 1656. when it escap'd that terrible Plague, which spread it self over the adjoining States of *Italy*, by the prudent measures taken by the great Duke: and what confirms it still more, is, that in the great Plague, which in 1665. destroy'd so many thousand Souls in this city, there were three entire parishes that continued uninfected to the end.

Supposing then that the Plague comes generally to us by communication, it concerns us very nearly to inquire into such methods of prevention, as may most effectually guard us from
being

being tainted. But the better to pave the way for this inquiry, I shall in the first place mention some directions that have been prescribed and practised by several learned persons, and out of these sum up as many of them as seem most worth our using for this purpose.

^a In the dreadful Pestilence which visited the City of *Athens*, in the days of *Socrates*, that philosopher recommended temperance as the surest preservative against the infection; and being himself armed with this great virtue, he forbore not to attend upon his sick friends, shewing them the utmost humanity and tenderness in their distress'd condition; yet he never caught the distemper, tho' he daily ministred to them that had it. This certainly was owing to that abstinence, for which he had been ever remarkable. Neither did this divine ^b Philosopher, whom the Oracle had pronounced the wisest of men, enjoy alone the benefit of his own prescription; but those of his Disciples too that excell'd in this virtue, conversed with safety amidst the contagion.

The mighty advantage of temperance in this case, appears not only in single Persons, but likewise in whole Nations. How rarely did the old *Romans* sustain any great damage by the Pestilence in the days of Virtue, when Probity made the Common Wealth flourish, before Luxury was known, while their Consuls and Dictators spent sparingly upon themselves, that they might squander upon their country; when all excess

^a Diog. in Vita Socratis Ælian 13. 27. ^b Diog. lib. 2. 37.

was accounted criminal, and private riches were of no use, but to relieve the poor, and serve the publick. In those happy days, old *Rome* but seldom felt the Plague, and when it did come, it cou'd make but slender execution upon bodies so clean and unpamper'd. We read of no considerable Pestilence among them, till the 578th year of the City, when *S. P. Albinus*, and *Q. Mucius Scævola* were Consuls. That happened first among the cattle, which died in so great numbers, that their carcasses putrified before they cou'd be remov'd. This infected the air of consequence, so that the spring following it broke out amongst the people in a terrible manner. Such a multitude of free people were seized with the sickness, that the poor slaves had neither attendance nor burial. Their neglected corps were expos'd in the streets for the Dogs and Vultures to feast upon, which though they assembled in prodigious numbers, cou'd not devour fast enough. This indeed was a dreadful Plague; but it ought to be remembred, that before this time the abstinence of the old *Romans* was grown out of fashion, and luxury was countenanced by the Senate, tho' not by the Laws. One thing at this time was remarkable, that amongst the higher rank none escaped so ill as the priests on this sad occasion, who for that reason were suspected by some prophane persons, to have been higher pamper'd than their fellow-citizens. But pampering is so seldom observ'd

c Tit. Liv. lib. 41. 26.

amongst men of that holy order, that we hope 'twas a malicious aspersiō.

The benefit of temperance, both towards the preventing and curing of the Plague, is evident even among the *Turks*, where this distemper seems to be at home in its own proper climate. For notwithstanding their want of precaution, and contempt of physick, yet by the strength of temperance and sobriety, they come off more favourably in the Plague than countries of greater luxury, and more learning; while, for a contrary reason, we *Britons* suffer dreadfully by this disease, having commonly too great a complaisance for our dear bellies.

^d Amongst the ancient *Greeks*, especially at *Athens*, in the time of the Plague, they us'd to kindle very great fires in every quarter of the town, which they thought purify'd the air. And at the same time private persons (at least the more prudent of them that could afford the expence) kept constant fires in their own houses, to correct the infection. They were wont also, on that dismal occasion, to sprinkle wine upon their doors and windows, imagining that the generous fumes thereof, would prevail over the contagious particles of the air, and render it more salubrious, Tho' the moderns have found vinegar more powerful for that purpose, or at least have fancy'd so.

^e 'Tis the opinion of a modern physician, who had convers'd very much with the Plague, that whoever apprehends himself within reach

^d Thucyd. lib. 2.

^e D. Dobrzensky Phil. col. 2. 20.

of the Contagion, may in a great measure be preserv'd, if he take care not to swallow his spittle, so long as he continues near those that have the distemper. For he conceives the saliva to be the readiest vehicle to receive the pestilential poison, and carry it down into the stomach, from whence it passes directly into the blood, and works those mortal effects which we see in the Plague. And the better to prevent swallowing the spittle (which in most persons is an involuntary action) he advises to chew things of a strong and disagreeable taste, which men naturally spit out, and suffer none of it to go down their throats. But of all strong things he principally recommends Tobacco, which has a quality in it that resists every kind of poison. This preservative he offers us upon his own repeated experience, as well as upon probable and convincing reasons.

^f Another learned person observing the method taken by unerring nature to expel the venom of the Plague, namely, by carrying it with the circulation of the blood, to the axillary, inguinal, and other glands, where if it stops, and gathers into bubos and imposthumes, and those imposthumes can be brought to suppuration, the patient will be out of danger; but if it open itself a way, and passes along with the natural motion of the blood to the heart, then death follows unavoidably: Observing, I say, the œconomy of nature, he us'd by way of prevention, to make an incision with a lancet on the

^f De Alprunus Phil. col. 2. 17.

right and left side of the groin, and put in a cerum; to the end, that by these artificial *sinks*, the poison might find a passage. This caution he practis'd on himself, and several of his friends, when the Pestilence raged at *Prague* in *Bohemia*, in the year 1680. Abundance of purulent matter issued forth at these vents, which guarded such as try'd the experiment, from suffering by the infection, tho' they attended daily those that had it.

This way of driving the venom of the Plague out at these *Common shores*, is countenanc'd by the constant method us'd by the *Turks*, to prevent the sad effects of the Small-pox. However foreign this may seem to our present subject, yet by the good leave of our Physicians, I shall set it down exactly as they perform it.

At *Constantinople*, and indeed in the greatest part of the *Turkish* dominions, they stand strangely in fear of the Small-pox on the score of their beauties. Their lives they can trust with fate, but not their faces. To prevent the disfiguring of which, they ingraft this distemper on their children in the following manner. They take a child of any age under ten years old, the younger the better after it can go alone, and find out a person that is sick of a favourable sort. When the pustules are ripe they lance some of them, and receive the matter into a nut-shell, and carry it to the place where the child is. Then with a needle, that hath been dipt into this pocky-poison, they prick the fleshy part of each arm and each thigh, deep enough to fetch blood. In a little time each of these

these punctures begins to inflame, and rises up into a great boil, which ripens, breaks, and discharges abundance of matter. About the seventh day the symptoms of the Small-pox begin to appear; but great part of the morbid humours, running out at the four Sinks above-mention'd, neither the life nor the beauty of the patient is in any danger. After the child is recover'd, these sores continue open for about twenty days, and intirely cleanse him from all the virulent remains of this disease, which makes every week so terrible a massacre here at *London*.

This notable precaution is practis'd so universally among the *Ottomans*, and with such constant success, that 'tis amazing our Physicians, who are in most cases enterprizing enough, have not ventur'd upon it here. But they are particularly cautious of their patient's lives, when they are to introduce any outlandish methods, that may abridge so considerable a branch of their practice. Insomuch that if any publick-spirited person should presume to preach it up for the preservation of his fellow citizens, the mob of the faculty would be apt to insult him, and cry out, *Great is the Apollo of the Britons*.

A method not very different from this of the *Musselmens*, is practis'd by the Doctors in the *East-Indies*, in all kinds of Feavers. In the very beginning of the distemper they make a drain, by cauterizing some fleshy part of the body. This immediately raises a blister, which they take care to keep running, till the disease is checkt by the plentiful discharge of the febrile matter.

matter. This is a very natural method, and promises more success in the beginning of a Feaver, before the strength of the patient is impair'd, than blisters can do, after the distemper has weaken'd nature so much, that she is not in condition to repel that which offends her.

I hope the reader will be so courteous as to forgive this digression, which is by no means a bare curiosity, and give me leave to return to my subject, and mention a very bold experiment undertaken by *Alprunus*, whereby he discover'd, that the pestilential poison surpasses by many degrees all other poisons. But that I may do him exact justice, I will make use of his own words. *Having lanc'd, said he, a Plague-boil of Mr. Godfrey Rechel, I collected the virulent matter into a retort, and luting a receiver close to it, I apply'd degrees of fire; at first came over a water, after that a more fat and oily substance; and last of all a salt ascended into the neck of the retort. The fire being remov'd, and the glasses separated, there issued forth a stink so intolerable, that a thousand old rotten ulcers, with their united stench at Midsummer, could not equal it: and tho' I fancy'd I had sufficiently arm'd all my senses against this subtle venom, by stuffing my ears with cotton, my nose with pessarys, and my mouth with sponges soakt in vinegar and treaks; yet, as if struck with a thunder-bolt, I was instantly seiz'd with a trembling over my whole body. To make short, I gave some*

of this horribly stinking salt to Monsieur Rechel the right owner, to taste, and then tasted of it myself; and we both agreed, it had an acrimony as great as Aqua Regis.

Hence no wonder that so many are afflicted in the Plague with violent vomitings, since their stomachs are continually irritated to this expulsion by a poison so exceedingly sharp. No wonder if from the sharpness of this venom agitating the humours, and urging the expulsive faculty, a diarrhoea is often occasion'd, attending the patient till the hour of his death. And no wonder, that from matter so beyond measure acrimonious, such piercing pains are felt in bubos, and such burnings in carbuncles.

^h Another learned author is a great enemy to fear in the time of the Plague, and therefore above all things recommends a perfect composure and intrepidity of mind. He is of opinion, that nothing makes a man so obnoxious to this horrible distemper, as to be afraid of it. *Sanctus testor*, says he, *me nullum hucusque vidisse agrum ex Peste, qui non a terrore eam contraxisset*. The reason he gives, is, because it hinders the spirits from exerting themselves, and renders them too languid to repel the infection. Nay, this passion, above all others, according to ⁱ *Sanctorius*, hinders the perspiration, and by that means multiplies superfluous humours, which serve to increase the putrification. For these reasons he intreats and conjures all persons, whose fortune it is to be in the neigh-

^h D. A. Q. Rivinus.

ⁱ De Statica Med. 217.

bourhood of the Plague, to chear up their drooping spirits, and as they tender their own safety, to inspire themselves with all the courage they possibly can, which will in good earnest be the securest fence against it.

He ascribes all the good suppos'd to be done by Amulets, to the tranquillity the mind gains, by the belief, that there is some very powerful virtue therein. Much the same opinion he has of Treacles, Vinegars, and other Alexipharmacks, whose principal success he conceives owing to the encouragement, with which they inspire the credulous persons that use them. He much approves of chewing such strong things as promote spitting, and hinder it from being swallow'd. He commends the firing of gun-powder, which purifys the air by the explosion, as well as corrects it by its nitrous and sulphureous quality. Bleeding, gentle purging, and other evacuations he allows of before infection, in order to lessen the humours. He applauds the anointing the temples, breast, and wrists, with the oyl of Scorpions, because of its repelling quality: but for that very reason is against anointing the bubos and carbuncles therewith, for fear of driving them in. He recommends nothing so earnestly as those cordials that fortify the heart, and chear the spirits, as being of all others the most potent preservatives, not only against the Plague, but also against the Small-pox, and all other contagious distempers.

This learned Gentleman seems to have built his notions on the sentiments of *Van-Helmont*, who thought pusillanimity and dejection of mind,

mind, very pernicious in these malignant cases. Accordingly he was wont to say, that by fortifying his heart with generous wine, and with more generous intrepidity despising all other antidotes, he was able to converse with infected persons in full security; while those who were affrighted and cast down, imbib'd the contagion at all their pores, there being either no spirits at all, or such as were too weak to oppose its entrance.

^k A young Physician of our own, who would have been a great ornament of the profession, had he not precipitated his own fate, depended too superstitiously on the doctrine of magnanimity. This gentleman, that he might convince the world he was without fear, ran into the opposite extreme of presumption. For in the Plague that happen'd in *England* in the year 1645, he had the courage to visit all ages and degrees of people; and indeed did great service to those poor creatures, whom every other physician, and even their spiritual doctors abandon'd. At this intrepid and good natur'd rate he rush'd every day into the midst of infection, without catching it. Many hundreds receiv'd the benefit of his advice, and he gain'd not only much money from the rich, but many blessings from the poor, for his charitable attendance.

Thus far the call of his profession, as well as the sentiments of humanity, might justify his boldness; but he carry'd both these considerations too far at last, when he was sent for to

^k Dr. Sayer.

Wallingford-Castle, where the Sickneſs raged terribly. There he found an intimate friend dangerously ill; and having given him a ſudoriſick with his own hand, that he might raiſe the ſweat the more kindly, he pull'd off his clothes and went to bed to him. To this raſh act his friendſhip transported him, as well as a belief that charity made him invulnerable: But he roſe no more from that fatal bed; for taking the diſtemper immediately, he dy'd in that friend's arms he ſo generously attempted to ſave, and he that had cur'd many, could not now cure himſelf.

Neither did this adventurous perſon wholly depend upon his courage, but the better to keep up that courage, he every morning ſwallow'd a large draught of generous wine, before he went to infected houſes, and conſtantly repeated the ſame doſe of preſervation, after he had finiſh'd his circuit. With theſe preſervatives he might, perhaps, have continu'd ſecure, had he approach'd no nearer to danger, than common prudence and ſelf-preſervation requir'd.

The famous Dr. *Willis* treats very largely and very learnedly of the Plague, and mentions ſundry methods, both publick and private, of preventing it, moſt of which are very worthy to be put in practice. Nevertheleſs he ſeems ſomewhat ſuperſtitious in the belief of the extraordinary power of Amulets; not from the animating hopes they fill the patient withal, but from the effluvia and natural force of the ingredients themſelves. His reaſoning upon this ſubject is very philoſophical, and rather amuſes than convinces;

vinces; tho' for the rest, his arguments seem to carry a great deal of solidity along with them. However I shall not mention them here, because they will naturally find a place in the Catalogue of Preservatives, with which I shall present the reader by and by; neither shall I blush to own, that I borrow several of them from this experienc'd and celebrated Author, who has deserv'd so well of mankind.

The Physician distinguish'd not only for his learning and diligence, but also for his uncommon sincerity, ¹Dr. Sydenham, is very circumstantial and exact in describing the Plague, with its progress, symptoms, and cure; but says hardly any thing of the ways of preventing this great evil. He seems rather inclin'd to suspect the efficacy of some of them, if we may judge by the manner wherein he expresses himself upon that head. *As to preservation, says he, I know the use of hot antidotes is every where commended, but with what success has not been yet made out. Indeed it is very probable, that wine drank too freely, and other strong preservatives taken daily at set hours, have hurry'd many into this disease, who might not otherwise have had it. But how great deference soever may be due to this gentleman's opinion, yet 'tis worth observing, that he is after all not so much against the antidote, as against the excess and abuse of it. This certainly all agree would be pernicious, by inflaming the blood and spirits, instead of invigorating them.*

¹ Obs. Med. 89

The truth of it is, no remedy was ever yet found out, not Specificks themselves excepted, but might be very injurious, and even mortal, if taken indiscreetly, or in too great a quantity.

Indeed it would be a very uncomfortable discovery, to find out, that no precaution, no antidote were sufficient to guard us from this unmerciful destroyer. Alas, almost all our hopes lye in preventing a disease so very dangerous and difficult to cure. Its attacks are so sudden, and its progress so rapid, that the venom penetrates like lightning thro' all the passages of life, where it extinguishes our spirits, and curdles our blood into deadly mortifications. This it often surprizes us withal, before nature can have time to raise an ebullition to throw it off. But tho' it should come on more leisurely, and our blood have time to boil into a Fever, in order to repel this dreadful adversary, yet still the odds will be unequal against us. For if at last our constitutions be not strong enough to drive out the fatal poison, there's but little room for tedious Art to lend her assistance. Because in the first place, this distemper happens, blessed be God so very seldom in our parts of the world, that few of the faculty have had any experience in it themselves, but must be beholden to their books, and the dark accounts that strangers have given of it. These alas will prove very defective, when we call to mind that the^m Plague is not altogether the same at one time, and at one place, that it is at another; but will differ according to the various causes from whence

proceeds, or the climate, or perhaps the season in which it happens; and what has been found beneficial in one sort, will be hurtful in another.

Moreover by reason of the great mortality of this disease, very few Physicians will venture their precious persons very near those that are sick. For if a Doctor have not natural courage sufficient to look the Plague in the face, 'tis to be fear'd his fortitude will not be much assisted by Faith and Religion: and if the love of mammon can't lead him on to this dangerous charge, I doubt the love of mankind will hardly do it. But tho' some few of the faculty will run the risk of visiting their wretched patients on this occasion, yet that is so very seldom, with so much terror, and at so awful a distance, that 'tis hardly possible they should ever be acquainted with the distemper enough to do any great service. However, supposing the very best, that some worthy sons of *Apollo*, like Dr. *Sayer*, will out of good nature tend upon the sick both duly and faithfully; yet these will prove so very few, and the unhappy patients at the same time so numerous, that many, very many, especially of the poorer sort, must be totally neglected, and the rest but indifferently look'd after. Insomuch that except God be pleased to send them his all-powerful assistance, or unless nature be strong enough to do her own business, they must perish without remedy.

For these reasons, the greatest service, that in this can be done to mankind, is out of the opinions of the best authors, and from the experience of several countries, to collect such methods

rhods of preventing this cruel disease, as may be most powerful, by God's assistance, to preserve as many as possible from it. And if I can, by this well meaning essay, but prevent the perishing only of one simple human creature, I shall think my self very happy, and my labour well bestow'd.

But before I prescribe the most probable ways, of preserving private persons, from being infected, I hope it will not be thought improper for me, to hint at such publick precautions, as by the advice of the most experienced Authors, are fit for the Government to take, either when there is only an apparent danger of the Plague, or after 'tis actually begun.

1. In the first place, I would humbly recommend that a general Fast be appointed, to humble our selves, and deprecate the vengeance of an offended God, that his just indignation may be thereby stay'd, and his Pestilence not let loose upon us. Or if that be already broke out, that God may then be prevail'd upon to order the destroying Angel to sheath his dreadful sword, as he was formerly by the seasonable humiliati-
on of *David*, in the threshing floor of *Araunah*. I would also beg that virtue and divine worship might be encourag'd, and profaneness and immorality severely punish'd.

2. That all commerce and correspondence with infected places be forbid under the severest penalties; and that all ships and persons coming from countries suspected, be obliged to a strict Quarantine, without any favour of connivance.

3. That all filthiness promoting putrification be carefully removed from the streets and neighbourhood of the town : That Butchers shambles, Fishmongers, and Poulterers shops, be kept perfectly sweet, and a general cleanliness enjoined amongst all sorts of people.

4. That the air may be purged, and the venomous particles thereof corrected by great and frequent fires in all parts of the town, at the publick charge. That sulphureous and strong scented things be also burnt in the streets in great quantities, particularly Pitch and Tar, and the stalks of Tobacco. To these I beg leave to add, the frequent firing the great guns round the *Tower*, as well as those in the *Park*, and on the other side of the *Water*.

5. That no provisions be suffer'd to be sold, or brought into the town, but such as are perfectly sound and wholsom, to be examin'd by Viewers to be sworn for that purpose. That on this occasion the poorest of the people be supply'd at a national expence, to prevent their feeding on tainted or unnatural things.

6. That in case the Plague be already begun, let the utmost caution be us'd to prevent its baleful progress, by separating those that are infected from the sound, and by causing the corps of the deceas'd to be interr'd very deep in the ground, as soon as may be after they are dead. And that Dogs, Cats, and other Animals, be kept from eating them, which help in some places to propagate the infection.

Thus having premis'd these publick and general rules, to be directed by the Government, I
 6 shall

shall next proceed to recommend such other methods of prevention, as may, by the help of God; contribute greatly towards guarding of particular persons, from catching this deadly contagion, if they be duly and diligently observ'd.

1. The first and surest preservative of all will be, a most humble and sincere repentance of our sins, and an unfeigned amendment of life, that God may be thereby mov'd not to pour out the terrors of his fury upon us, nor involve us in the general calamity. When we have made this happy advance, we may hope with confidence for a blessing upon the prudent measures we shall afterwards take for our safety.

2. The next is an exact temperance, sobriety, and moderation in all our enjoyments, which will abate the vicious humours of the body, and make us less dispos'd to receive the sickness; and tho' it should be our fortune to catch the infection, yet our spirits will be more vigorous to encounter and repel it.

3. We must be careful to avoid all violent exercise that may exhaust our spirits and set open our pores, thro' which the subtle venom will find a passage into our bodies. For the same discreet reason, it will be necessary to abstain from immoderate Venery, which renders the pores more lax and spongy, and the spirits more languid.

4. We should do our utmost to be of good courage, and next the Plague itself, avoid being afraid of it. We should keep our spirits chearful and erect, and suffer no fanciful apprehensions to bow down our hearts. A terrify'd and dejected mind will dispose us most unaccountably

to suck in the very distemper we are afraid of. But while we are contending with these unmanly fears, we ought cautiously to avoid rushing either thro' vanity or presumption, into the opposite extream of temerity; lest, like *Dr. Sayer*, we provoke our fate, and draw down our own destruction by violence upon our heads.

5. It may be very prudent to open a vein for those who are of a full and florid habit; for by this relief, the blood having a larger field to move in, the circulation may be perform'd with more freedom; and consequently the blood be less liable to infection and coagulation.

6. For such as have been accustomed to excesses, a gentle purge, or a vomit now and then, may be very proper, to remove part of the excrementitious matter, and lessen the gross humours. The best purgative I can recommend for this purpose, is, an infusion of Tobacco in strong Wine, with which anoint the lower part of your bellies; and if you would have the same infusion work by way of emetick, you may then anoint the pit of your stomach with it, till it gives you three or four vomits.

7. By way of alexipharmack, we may twice or thrice every day, when we find our spirits most depress'd, take a moderate glass of Canary, or Palm-wine, in which Virginian Snake-root has been infus'd so long as to make it agreeably bitter. This will have a happy effect, in giving vigour to our spirits to resist the poison and motion of the blood, the better to preserve it from coagulation.

8. As a most necessary and effectual preservative

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tive, I earnestly recommend an issue to be made on each side of the groin, which will plentifully drain away the vicious humours; and in case any taint of the Pestilence should find admittance, it will most naturally and safely be cast out at these two common shores.

9. To correct the air, and dissipate the infection, 'twill be of great benefit to make large fires in all the rooms which we most frequent, especially in our bed-chambers, where the fire should be never suffer'd to go out. Because in our sleep, when the pores are most open, the Contagion will meet with the least resistance. And if it might not look a little too frantick, 'twould be very right for us to fire several guns in a day out at our doors and windows, and several pistols in our rooms, carefully confining the smoak, which contains both a nitre and sulphur, very proper to purge away the pestilential vapour.

10. Instead of all other amulets, and preferable to them all, we shall find a singular virtue against the Plague in fresh, strong, and quick-scented Tobacco. The sprightly effluvia sent forth from this vegetable, after it is rightly cur'd, are by nature peculiarly adapted to encounter and dissipate the pestilential taint, beyond all the antidotes that have been yet discover'd. 'Tis hard to say in what secret manner it performs this powerful operation, but the solution given by Dr *Willis* and others, of the virtue of those amulets that are made of poisonous things may be apply'd to this case; for Tobacco being itself poison, the effluvia flowing from it, do, by similitude of parts, gather to them the little bodies

bodies of the pestilential taint, and intirely correct them.

Now that Tobacco is truly a poison, may be prov'd by many experiments. The chymical oyl of it will kill all animals, from a Louse up to an Elephant. The very smoak of it will both purge and vomit; and 'tis so very penetrating, that the infusion will do the same thing, if outwardly apply'd to the stomach and navel. However, like some other poisons, if it be rightly us'd, Tobacco is excellently good in many cases.

Experience teaches us that it will not only heal fresh wounds of every sort in a little time, but proper preparations of it will likewise cure all kinds of ulcers and old sores in every part of the body. It has been found a specifick in the Itch, and Leprosy, and almost all the distempers of the skin. If we may credit ^p *Julius Palmarius* too, it will cleanse and heal up venereal ulcers with wonderful success; as also the scrophulous sores of the Evil. It will assuage the pain of any part that has been stung with a Nettle, Wasp, or Hornet; and if it be apply'd upon the spot, 'twill cure the bite of a Scorpion, Viper, or mad Dog. In *America* the *Charibbee Indians* constantly apply'd it with success to wounds made with envenom'd Arrows and Darts, for which purpose they never went to war without it, that they might have their remedy at hand. It is also an excellent vomit for a man, or any other animal that has swallow'd

o Everar. de herb. pan. 35.

p De Morb. Contagiosis.

poison, of which the *Spaniards* have often experienc'd the success; by whom also cancers in the breast have been often cur'd with a balsam made of Tobacco.

These are all instances that Tobacco is a powerful resister of poison in every degree: But to bring it still nearer our subject, I have been credibly inform'd, that in the Plague which happen'd about five years ago in the northern parts of *Europe*, nothing was found so effectual in easing the pain of pestilential carbuncles and buboes, and also in curing them, as the juice or powder of this powerful plant.

I think I may with the more confidence extol the singular virtue of Tobacco, in checking the contagion of the Plague, because it has been said by men of observation and integrity, who liv'd in those days, that in the great Plague of 1665, the houses of Tobacco Merchants and Tobacco-nists, who dealt in large quantities of Tobacco, did wonderfully escape the infection. Nor are those Colonies in *America*, where they plant much Tobacco, ever visited with any distemper like the Pestilence; but if by accident it has happen'd at any time to be carry'd thither by shipping, 'tis presently extinguish'd by the effluvia of this great antidote. An instance of which, as I have been told, fell out in *Virginia*, in the year 1697, when Rear-Admiral *Nevil* arrived there, with a squadron of his Majesty's ships from some of the Islands. They carry'd a very contagious sickness along with them, very like the Plague, of which many of the officers and sea-men dy'd, amongst whom was the Admiral himself.

himself. His corps, with several others, were carry'd a-shore to be bury'd, and many of the sick were landed, in hopes that change of air and fresh provisions might recover them. Yet this disease, tho' very malignant, did not spread at all, but was soon check'd by the wholesome breath of their great *Staple Tobacco*.

It has also been remark'd, that since the use of Tobacco has been so universal in *Great Britain*, that all ranks of people either snuff, chew, or smoak, the Plague has not paid us a visit half so often as formerly. For since that terrible one in the year 1665, our Land, blessed be God, has been perfectly free from it, which is now fifty-four years compleat; whereas in the Century preceding that, our ancestors had the Plague no less than five several times, which at a medium was once in twenty years. This is evident from the following Scheme, shewing that this fatal Sickness was in *England*

1563	1625
In the years 1594 and also in the years 1645	
1602	1665

Now to what other cause can we reasonably ascribe our escaping this calamity so much longer than we us'd to do? I fear it is not owing to our virtue, which seems by no means to be more conspicuous than that of our ancestors. Nor can it fairly be imputed to our prudence, because no nation, that is not Mahometan, can possibly be more careless. We suffer ships from *Turky*, and from *Alexandria* in *Ægypt*, where the
Plague

Plague is always more or less, to land their goods and their men without the ceremony of riding Quarantine. We hazard, by this indiscreet proceeding, the health of our people for the benefit of the merchant, which is carrying our notions of trade a little too far. Neither has our cleanliness procur'd us this blessed security, for there never was so little care taken of our Streets, our Night-Carts, and Common-shores, as of late years. Nay cleanliness is tax'd by the duty upon soap, and filthiness seems establish'd by a law.

All these matters consider'd, I must own myself at a loss how to account for our having been so long free from infection, unless it be because a vastly greater quantity of Tobacco has of late years been consum'd among us. All degrees of people, the rich as well as the poor, the women as well as the men, do some way or other promote this consumption. Vast magazines of this antidote are distributed into every street, and the Capnometricians of *Crane Court* have computed, that about the ninety-third part of the smoak that covers this great City, must certainly be the smoak of Tobacco. This it is that in probability purges our air, and corrects those noisom damps, that might otherwise beget contagious diseases amongst us. Of this I am the more firmly perswaded for this further reason, because *Great Britain* and *Holland*, which are the two countries in *Europe* that use most Tobacco, have both of them been longest free from the Plague, notwithstanding their commerce with infected places has been greater, and at the

the same time, their precautions much less than of any other nation.

Upon all these considerations I am humbly of opinion, that when there is any danger of a pestilence, we can't more effectually consult our own preservation, than by providing ourselves with a reasonable quantity of fresh, strong-scented Tobacco. We should wear it about our clothes, and about our coaches. We should hang bundles of it round our beds, and in the apartments wherein we most converse. If we have an aversion to smoaking, it would be very prudent to burn some leaves of Tobacco in our dining rooms, lest we swallow the infection with our meat. It will also be very useful to take snuff plentifully made of the pure leaf, to secure the passages to our brain. Nor must those only be guarded, but the pass to our stomachs should be also safely defended, by chewing this great *Antipoison* very frequently. This will wonderfully resist the Contagion, and hinder it from descending with our spittle into our stomachs, thro' which lies the high road into our blood. In short, we should, both abroad and at home, by night as well as by day, alone and in company, take care to have our sovereign antidote very near us, an antidote which seems design'd by providence as the strongest natural preservative against this great destroyer.

If these precautions be carefully put in practice, there will be nothing wanting, but humbly to supplicate the divine goodness to send a blessing upon such endeavours for our safety. For in this case, without the assistance of the Almighty,

mighty, vain alas is the help of man, and all humane knowledge is wretched folly. Let us therefore cast ourselves before his throne, sadly confessing our sins, and deprecating his just vengeance. Let us in the first place intercede for our dear Country, intreating his tender mercy to save those that are already sick, and preserve those that are well from the infection. Then let us, in the spirit of meekness and contrition, pray for ourselves and our families, that it may please God to exempt us from the common Calamity; by no means imputing it to our righteousness that we have thus long escap'd, but steadfastly believing, that unless we amend our lives we are reserv'd for a greater destruction. If we behave ourselves in this lowly and christian manner, we have reason to hope that God will please to be intreated to direct us in the choice of those *Antidotes* that are best, and likewise give them strength and energy to operate vigorously for our preservation.



F I N I S.